

FINE FLOW



UNGGUL  
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PRISMA

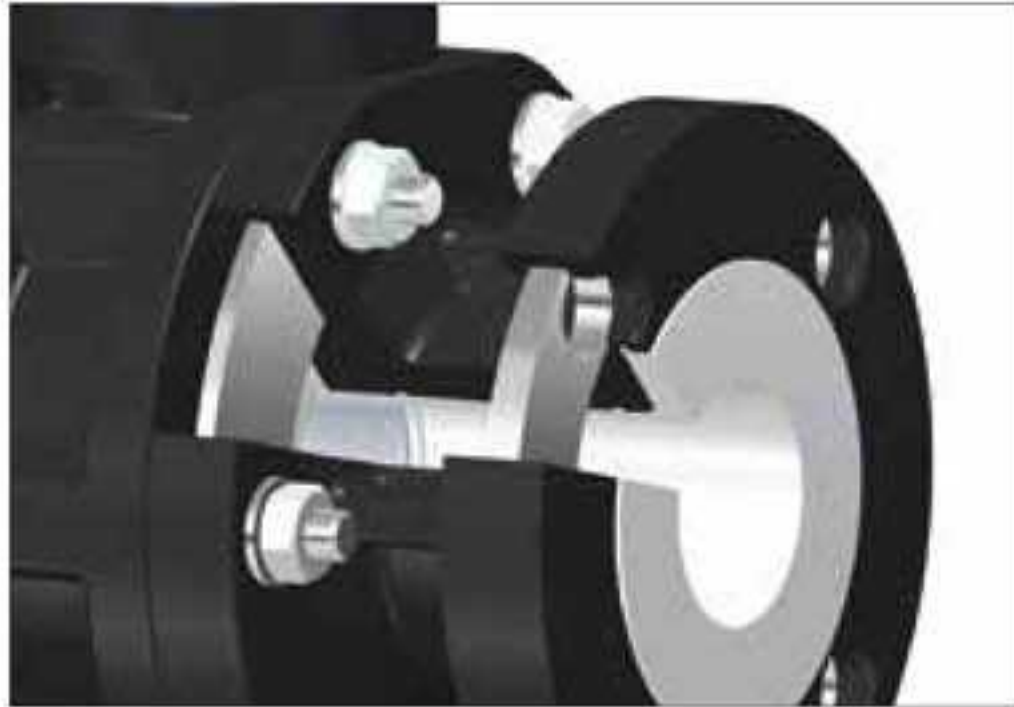
Lined Composite Plastic

# Ball Valve



Lined Composite Plastic Ball Valve

## Material Properties



### ● Materials

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**PP+GF**  
**PA+GF**

#### Engineering Plastic

Engineering plastics usually have a unique combinations of properties such as heat resistance, mechanical strength, rigidity, chemical stability, self-lubrication and fire safety. They have numerous applications particularly such as in manufacturing gears and skids, in chemical plants and in car industry.

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**PPS+GF**

#### Super Engineering Plastic

Super engineering plastics have with excellent resistance to heat, chemicals and wear. (Super engineering plastics have higher resistance to heat, chemicals and wear than engineering plastics.) They have numerous applications particularly such as in aerospace structures, semiconductor manufacturing equipment, and food and beverage processing machinery.

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**PFA**

#### Perfluoroalkoxy

While PFA (Perfluoroalkoxy) has similar advantageous processing properties as in FEP (Fluorinated ethylene propylene), PFA is ten times more capable of withstanding repeated bending without fracture and has better resistance to heat (up to 260°C) than FEP.

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**PTFE**

#### Polytetrafluoroethylene

Polytetrafluoroethylene (PTFE) is a synthetic fluoropolymer of tetrafluoroethylene and a well-known brand name of PTFE-based formulas is Teflon by Chemours. PTFE has useful properties such as slippery surface, high melting point, and high resistance to attacks by various chemicals.

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**PVDF**

#### Polyvinylidene Fluoride

PVDF (Polyvinylidene fluoride or polyvinylidene difluoride) has been used in special applications which require the highest purity as well as high resistance particularly to solvents, acids and hydrocarbons.

# Series CBA1 / CBA2

## Ball valve

### ● Features

- Fully PFA Lined ball for chemically corrosive media
- Plastic-metal hybrid structure
- Blow-out proof stem
- Maximum flow rates with lowest pressure drops
- PTFE Chevron packing provides stem seal integrity

### ● Applications

- Chemical process
- Desalination
- Water and waste water treatment
- Shipbuilding
- Semiconductor
- Hazardous services (Acetic Acid, Sulfuric Acid etc.)



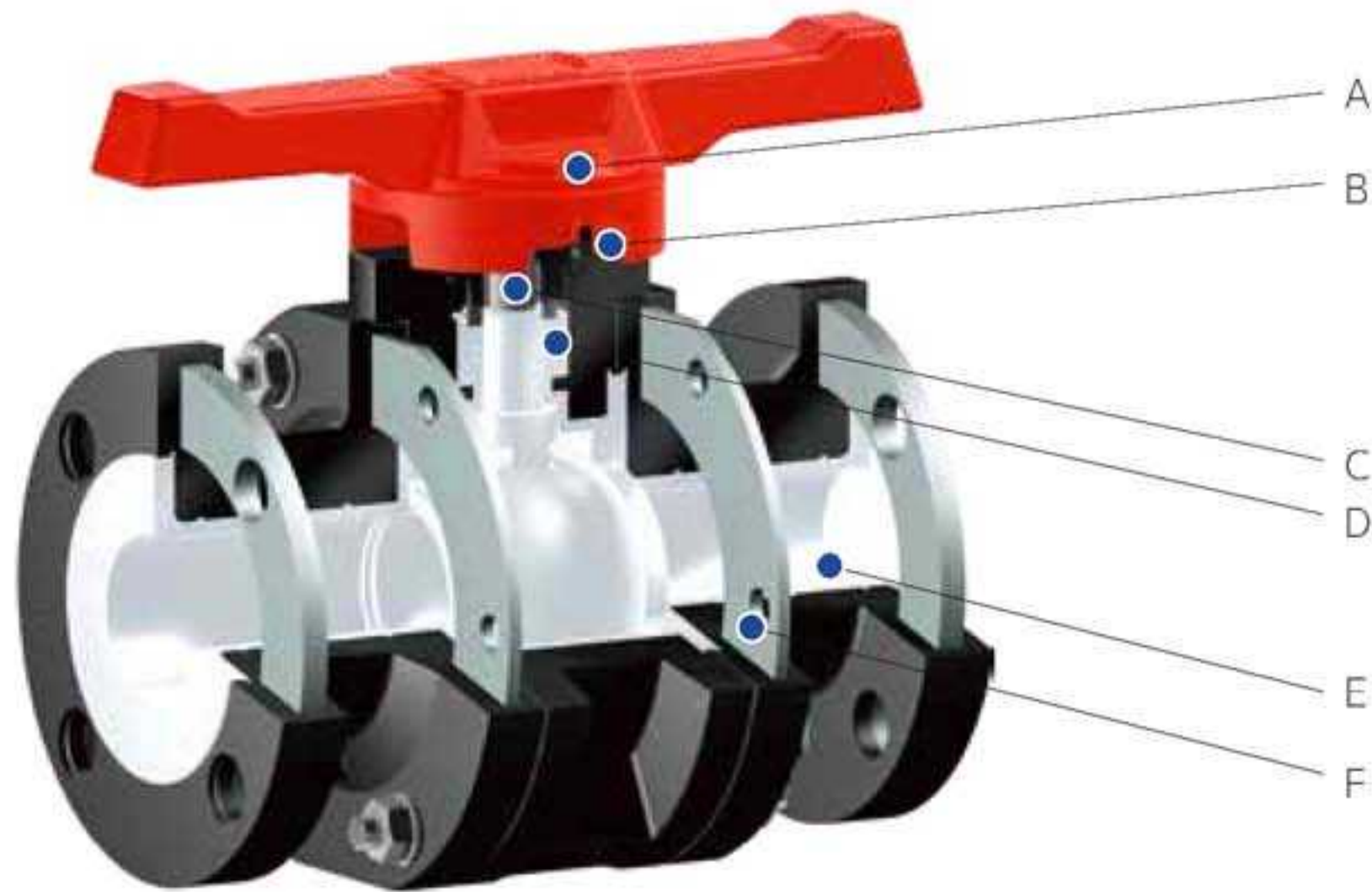
**Series CBA1 / CBA2 ball valves** have advanced structure (Plastic – Metal Hybrid Technology)

**FINE FLOW's** innovative Plastic-metal hybrid structure has longer durable service life and suitable for more aggressive environment than ordinary plastic valves.

### ● Technical specifications

<b>Construction</b>	2-way floating type ball valve
<b>Body type</b>	Two-piece or three-piece
<b>Available size</b>	DN 20 – DN 100
<b>Face to face</b>	ASME B16.10_SHORT (DN 25~DN 40) DIN 3202 (DN 20~DN 100) FINEFLOW STANDARD
<b>End connection</b>	DIN 2501, PN16 ANSI B16.5, Class 150 JIS B 2220, 10K
<b>Top flange</b>	ISO 5211
<b>Tightness check</b>	API 598
<b>Valve material</b>	Body : PPG or PPSG with PFA Ball / Stem : PFA / CF8M with PFA
<b>Seal material</b>	Ball seat / Stem seal : PTFE

# | Series **CBA1**



## ● Features & Benefits



**A Lockable Hand Lever**  
Using padlock, hand lever locks both full open and full close position.



**B Mounting Flange**  
Designed to mount an automation directly on the top flange (ISO 5211)



**C Shaft Bearing**  
- Two FKM o-rings Protect stem and seal components from atmospheric or environmental corrosion,  
- Technopolymer bearing reduces torque.



**D PTFE Chevron Packing**  
Stem is sealed with its self adjusting function.

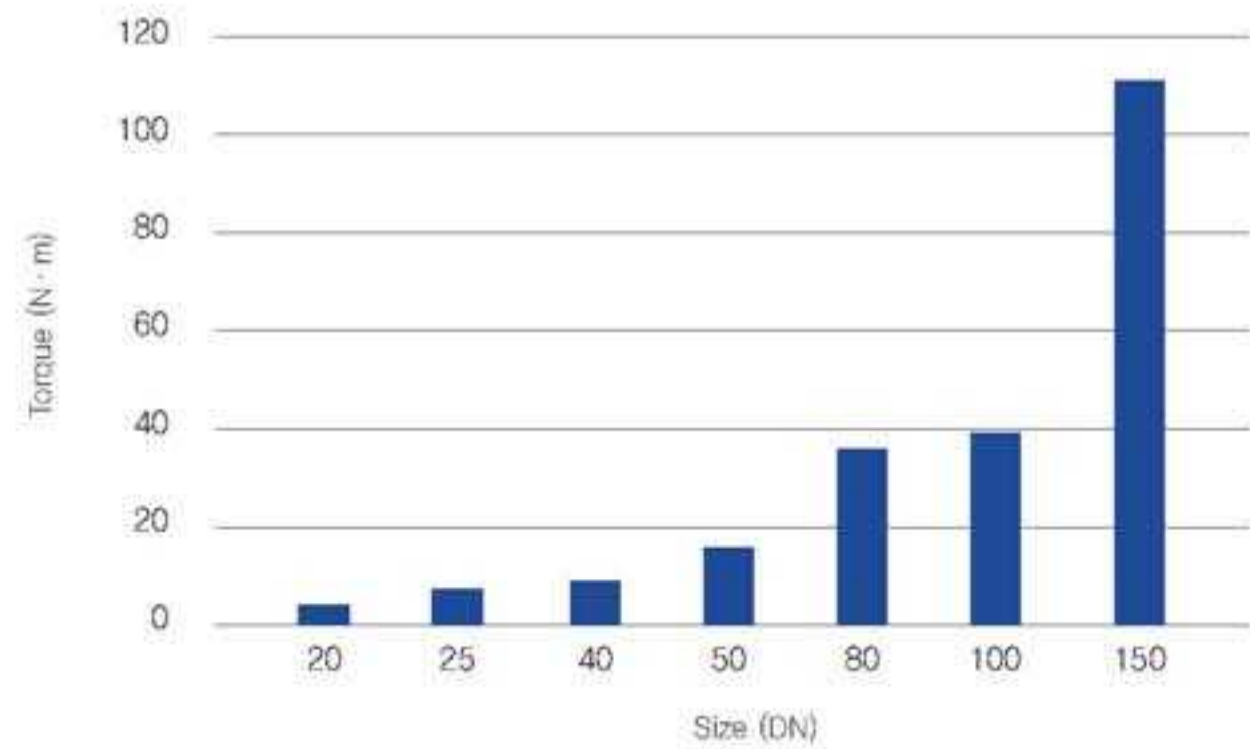


**E PFA / PVDF Liner**  
- Minimum 3mm thick as per ASTM F1545 requirement,  
- PFA or PVDF liner option.



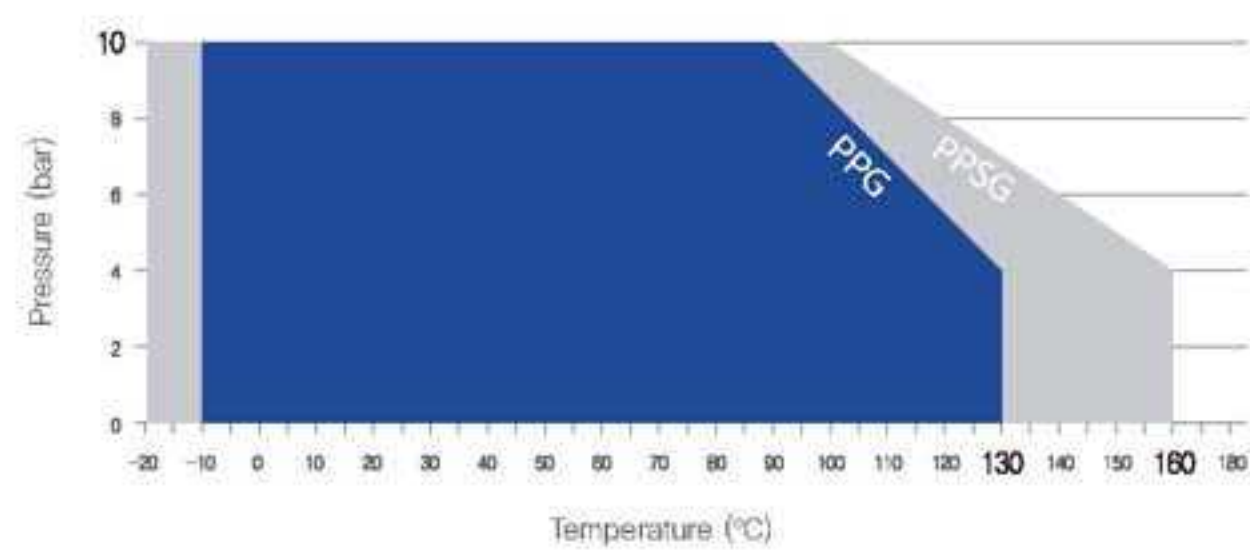
**F Advanced Structure (Plastic – Metal Hybrid Technology)**  
Plastic-metal hybrid structure has longer durable service life and suitable for more aggressive environment compared with ordinary plastic valve.

## ● Operating Torque



## ● Pressure – Temperature Chart

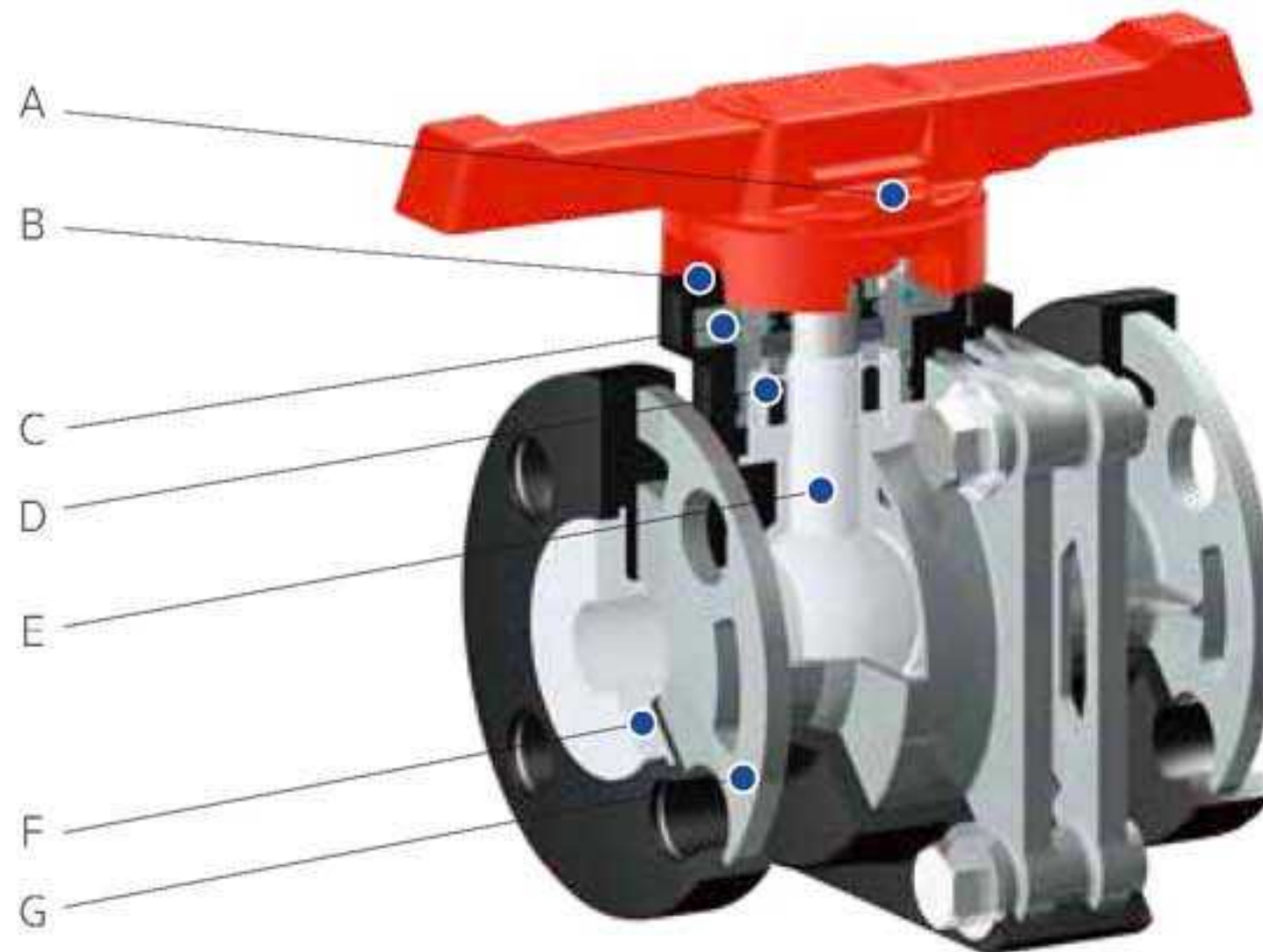
Series CBA1



# | Series CBA2

**▶ Heavy duty service**

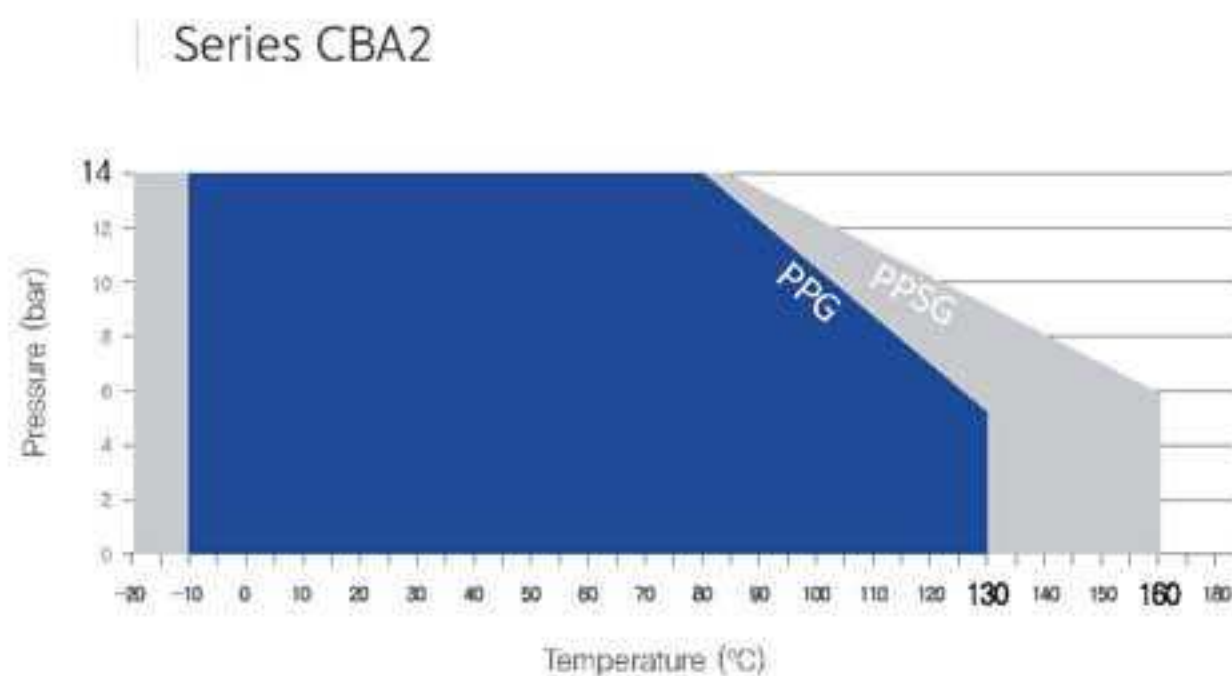
Series CBA2 is suitable for severe service conditions



**● Cv-Values**

DN	Cv
20	37
25	60
40	213
50	300
80	670
100	1,505
150	3,510

**● Pressure – Temperature Chart**



**● Features & Benefits**



**A Lockable Hand Lever**  
Using padlock, hand lever locks in both full open and full close position.



**B Mounting Flange**  
Designed to mount an automation directly on the top flange (ISO 5211)



**C Shaft Bearing**  
- Three FKM o-rings protect stem and seal components from atmospheric or environmental corrosion.  
- Technopolymer bearing reduces torque.



**D Self Adjusting Sealing System**  
Belleville spring provides live loading to seal points and reliable stem sealing.



**E One Piece Ball / Stem Unit**  
One piece PFA lined ball and stem unit makes better resistance to higher temperature and pressure, and not only ensure control of valve but also minimizes failures of stem.



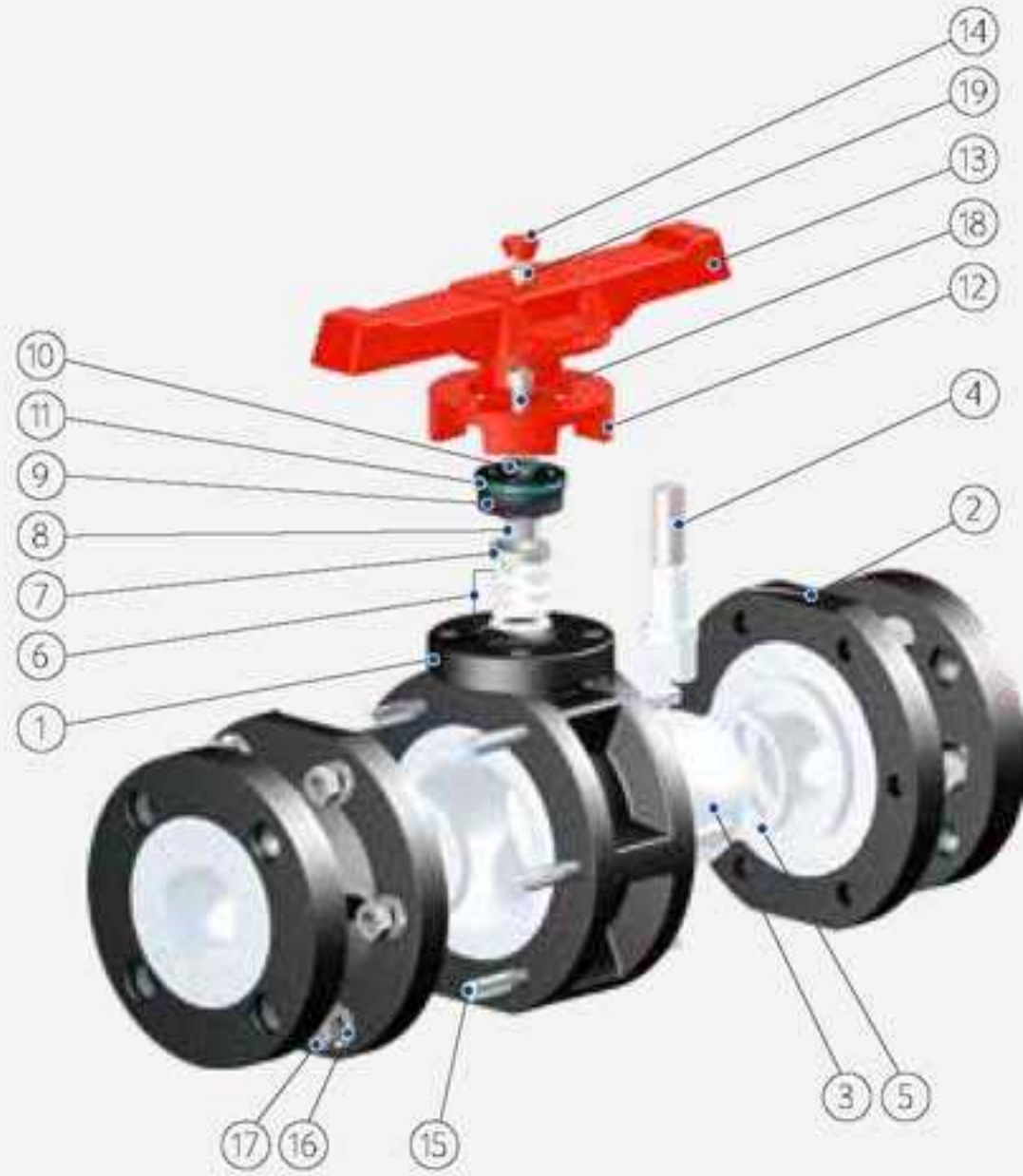
**F PFA / PVDF Liner**  
- Minimum 3mm thick as per ASTM F1545 requirement.  
- PFA or PVDF liner optional



**G Advanced Structure (Plastic – Metal Hybrid Technology)**  
Plastic-metal hybrid structure has longer durable service life and suitable for more aggressive environment than ordinary plastic valve.

## Structure & Specification

Series CBA1



Series CBA2



Lined Composite Plastic Ball Valve Series CBA1

No.	Description	Material
1	Body	PPG / PPSG with PFA
2	Tail	PPG / PPSG with PFA
3	Ball	PFA
4	Stem	Stainless Steel with PFA
5	Ball seat	PTFE
6	Stem seal	PTFE
7	Support ring	Stainless Steel
8	Bearing	Stainless Steel
9	Gland	PPSG
10	Inner O-ring	FKM
11	Outer O-ring	FKM
12*	Lever lock plate	PPG
13*	Lever	PPG
14*	Lever cap	PPG
15	Stud bolt	Stainless Steel
16	Flat washer	Stainless Steel
17	Nut	Stainless Steel
18*	Hex nut	Stainless Steel
19*	Soc.head cap screw	Stainless Steel

Lined Composite Plastic Ball Valve Series CBA2

No.	Description	Material
1	Body	PPG / PPSG with PFA
2	Tail	PPG / PPSG with PFA
3	Ball/Stem unit	Stainless Steel with PFA
4	Ball seat	PTFE
5	Stem seal	PTFE
6	Belleville spring	Spring Steel
7	Bearing	Stainless Steel
8	Gland	Stainless Steel
9	Outer O-ring	FKM
10	Inner O-ring (a)	FKM
11	Inner O-ring (b)	FKM
12*	Lever lock plate	PPG
13*	Lever	PPG
14*	Lever cap	PPG
15	C-ring	Stainless Steel
16	Flat washer	Stainless Steel
17	Hex bolt	Stainless Steel
18*	Soc.head cap screw	Stainless Steel
19*	Soc.head cap screw	Stainless Steel

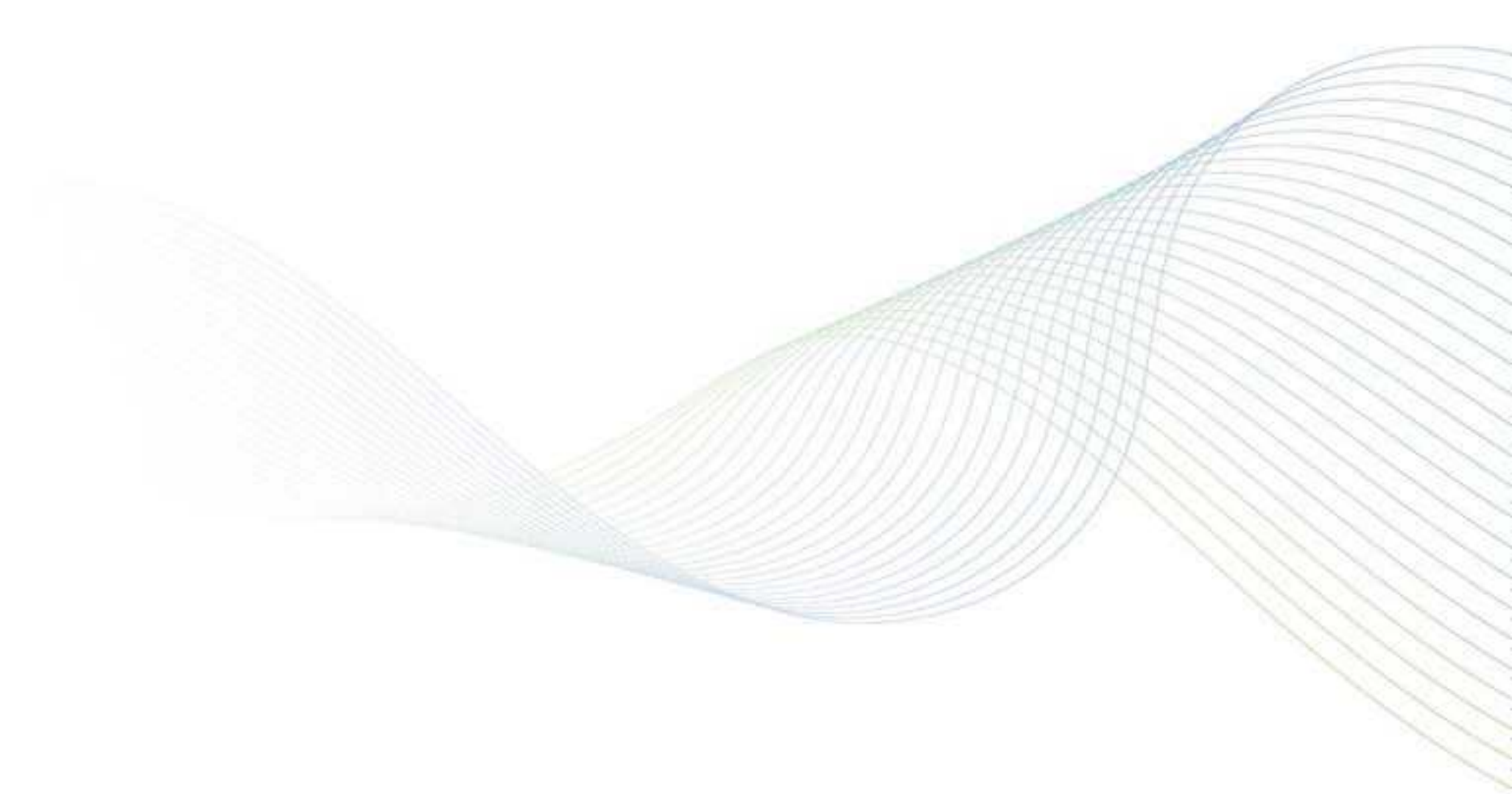
\* Series CBA1 / CBA2 Common part





High Performance and Creative Technology Company

**FLUONICS**



## **PT. Unggul Prakarsa Prisma**

Intercon Plaza Blok D8-9, Srengseng, Kembangan,  
Jakarta Barat - Indonesia

Phone: +62 21-5890 1302

Web : [www.unggulpp.com](http://www.unggulpp.com)